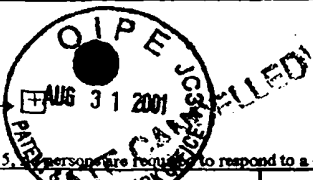


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Application Number	09/866,067
Filing Date	May 23, 2001
First Named Inventor	Meade et al.
Group Art Unit	Not Yet Assigned 1634
Examiner Name	Not Yet Assigned S. Z. Homen
Attorney Docket Number	A-58762-20/RFT/RMS/RMK

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 12

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
SE	1	4,704,193		Bowers et al.	11/1987	
	2	4,707,352		Stavrianopoulos	11/1987	
	3	4,707,440		Stavrianopoulos	11/1987	
	4	4,711,955		Ward et al.	12/1987	
	5	4,755,458		Rabbani et al.	7/1988	
	6	4,787,963		MacConnell	11/1998	
	7	4,840,893		Hill et al.	6/1989	
	8	4,849,513		Smith et al.	7/1989	
	9	4,868,103		Stavrianopoulos et al.	9/1989	
	10	4,894,325		Englehardt et al.	1/1990	
	11	4,943,523		Stavrianopoulos	7/1990	
	12	4,945,045		Forrest et al.	07/1990	
	13	4,952,685		Stavrianopoulos	8/1990	
	14	4,994,373		Stavrianopoulos	2/1991	
	15	5,002,885		Stavrianopoulos	3/1991	
	16	5,013,831		Stavrianopoulos	5/1991	
	17	5,082,830		Brakel et al.	1/1992	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ³
		Office ²	Number ⁴	Kind Code ⁵ (if known)				
SE	18	EP	0 234 938	A2	Cranfield Inst. of Tech.	2/1987		
	19	EP	0 229 943	B1	Molecular Biosystems Inc.	7/1987		
	20	EP	0 599 337	A2	Canon Kabushiki Kaisha	1/1994		
	21	EP	0 063 879	A2	Yale University	11/1982		
	22	EP	0 515 615		Boehringer Mannheim	9/1996		
	23	CA	2 090 904	A1	F. Hoffman-La Roche	9/1993		
	24	JP	238,166	A	Mitsubishi Corp.	1988	abstract	
	25	JP	6-41183	A2	Mitsubishi Corp.	1994		

Examiner Signature	S. Z. Homen	Date Considered	5-17-03
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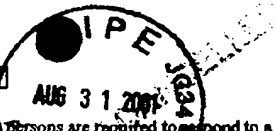
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 2 of 12

Complete if Known	
Application Number	09/866,067
Filing Date	May 23, 2001
First Named Inventor	Meade et al.
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	A-58762-20/RFT/RMS/RMK

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	26	5,089,112		Skotheim et al.	02/1992	
	27	5,175,269		Stavrianopoulos	12/1992	
	28	5,180,968		Bruckenstein et al.	01/1993	
	29	5,241,060		Englehardt et al.	8/1993	
	30	5,242,828		bergstrom et al.	09/1993	
	31	5,278,043		Bannwarth et al.	1/1995	
	32	5,312,527		Mikkelsen et al.	5/1994	
	33	5,328,824		Ward et al.	7/1994	
	34	5,356,786		Heller et al.	10/1994	
	35	5,391,272		O'Daly et al.	02/1995	
	36	5,403,451		Riviello et al.	4/1995	
	37	5,436,161		Bergstrom et al.	07/1995	
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	39	5,449,767		Ward et al.	9/1995	
	40	5,472,881		Beebe et al.	12/1995	
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	42	5,552,270		Khrapko et al.	9/1996	

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		Office ⁴	Number ⁴	Kind Code ² (if known)				
	43	WO	86/05815	A1	Genentics International Inc.	03/1985		
	44	WO	90/05732	A1	Columbia Univ.	5/1990		
	45	WO	92/10757	A1	Boehringer Mannheim	6/1992		
	46	WO	93/22678	A2	Mass Inst. of Tech.	11/1993		
	47	WO	93/10267	A1	IGEN, Inc.	5/1993		
	48	WO	94/22889	A1	Cis Bio International	10/1994		
	49	WO	95/15971	A2	Calif. Inst. of Technology	6/1995		
	50	WO	96/40712	A1	Calif. Inst. of Technology	12/1996		

Examiner Signature	S. Ziemer	Date Considered	5-17-03
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Sheet

3

of

12

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Application Number	09/866,067
Filing Date	May 23, 2001
First Named Inventor	Meade et al.
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	A-58762-20/RFT/RMS/RMK

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U.S. PATENT DOCUMENTS

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SE	51	5,565,552		Magda et al.	10/1996	
	52	5,571,568		Ribi et al.	11/1996	
	53	5,573,906		Bannwarth et al.	11/1996	
	54	5,591,578		Meade et al.	1/1997	
	55	5,595,908		Fawcett et al.	1/1997	
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	57	5,620,850		Barndad et al.	4/1997	
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	59	5,700,667		Marble et al.	12/1997	
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	61	5,741,700		Ershov et al.	4/1998	
	62	5,756,050		Ershov et al.	5/1998	
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	64	5,770,721		Ershov et al.	6/1998	
	65	5,776,672		Hashimoto et al.	7/1998	
	66	5,780,234		Meade et al.	7/1998	
	67	5,795,453		Gilmartin et al.	08/1998	

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Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ³
		Office ²	Number ⁴	Kind Code ⁵ (if known)				
SE	68	WO	97/01646	A2	Univ. of N. Carolina	1/1997		
	69	WO	97/31256	A3	Cornell Res. Foundation	08/1997		
	70	WO	97/44651	A1	AU Membrane and	11/1997		
	71	WO	97/27329	A1	Univ. of Chicago	7/1997		
	72	WO	97/41425	A1	Univ. of Alberta	11/1997		
	73	WO	98/20162	A2	Clinical Micro Systems	5/1998		
	74	WO	98/27229	A1	Univ. of Chicago	6/1998		
	75	WO	98/28444	A2	Univ. of Chicago	7/1998		
	76	WO	98/35232	A2	Univ. of N. Carolina	8/1998		
	77	WO	98/51823	A1	Mosaic Technology	11/1998		

Examiner Signature	S. Zomer	Date Considered	5-17-03
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number 09/866,067
Filing Date May 23, 2001
First Named Inventor Meade et al.
Group Art Unit Not Yet Assigned
Examiner Name Not Yet Assigned
Attorney Docket Number A-58762-20/RFT/RMS/RMK

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U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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SE	78	5,824,473		Meade et al.	10/1998	
	79	5,837,859		Teoule et al.	11/1998	
	80	5,849,486		Heller et al.	12/1998	
	81	5,851,772		Mirzabekov et al.	12/1998	
	82	5,952,172		Meade et al.	9/1999	
	83	6,060,023		Maracas	05/2000	
	84	6,060,327		Keen	05/2000	
	85	6,071,699		Meade et al.	06/2000	
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	90	6,177,250		Meade et al.	01/2001	
	91	6,180,352		Meade et al.	01/2001	
	92	6,200,761		Meade et al.	03/2001	
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	93a	5,705,346		Okamoto et al.	01/1998	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁴
		Office ³	Number ⁴	Kind Code ² (if known)				
SE	94	WO	98/57159	A1	Clinical Micro Systems	6/1997		
	95	WO	99/57319	A1	Clinical Micro Systems	11/1999		
	96	WO	99/67425	A2	Clinical Micro Systems	12/1999		
	97	WO	99/14596	A1	AB Sangtec Medical	3/1999		
	98	WO	99/37819	A2	Clinical Micro Systems	07/1999		
	98a	WO	99/29711	A1	Nanogen Inc.	06/1999		

Examiner Signature

S. Z. Roman

Date Considered

5-17-03

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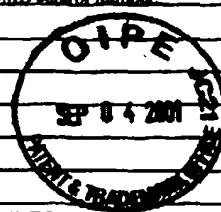
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	09/866,067
		Filing Date	May 23, 2001
		First Named Inventor	Meade et al.
		Group Art Unit	Not Yet Assigned
		Examiner Name	Not Yet Assigned
Sheet	5	of	12
		Attorney Docket Number	A-58762-20/RFT/RMS/RMK



OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
SE	99	Aizawa et al., "Integrated Molecular Systems for Biosensors," <i>Sensors and Actuators B, B@S</i> (Nos 1/3) Part 1:1-5 (March 1995).	
	100	Albers et al., "Design of Novel Molecular Wires for Realizing Long-Distance Electron Transfer," <i>Biochemistry and Bioenergetics</i> , 42:25-33 (1997).	
	102	Alleman, K.S., et al., "Electrochemical Rectification at a Monolayer-Modified Electrode," <i>J. Phys. Chem.</i> , 100:17050-17058 (1996).	
	103	Arkin et al. "Evidence for Photoelectron Transfer Through DNA Intercalation," <i>J. Inorganic Biochem. Abstracts</i> , 6th International Conference on Bioinorganic Chemistry, 51(1) & (2):526 (1993).	
	104	Barisci et al., "Conducting Polymer Sensors," <i>TRIP</i> , 4(9):307-311 (1996).	
	105	Baum, R. M., "Views on Biological, Long-Range Electron Transfer Stir Debate," <i>C&EN</i> , pp 20-23 (1993).	
	106	Bechtold, R., et al., "Ruthenium-Modified Horse Heart Cytochrome c: Effect of pH and Ligation on the Rate of Intramolecular Electron Transfer between Ruthenium(II) and Heme(III)," <i>J. Phys. Chem.</i> , 90(16):3800-3804 (1986).	
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	111	Boon et al., "Mutation Detection by Electrocatalysis at DNA- Modified Electrodes," <i>Nature Biotechnology</i> , 18: 1096-1100 (October 2000).	
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	113	Brun, A. M., et al., "Photochemistry of Intercalated Quaternary Diazaaromatic Salts," <i>J. Am. Chem. Soc.</i> , 113:8153-8159 (1991).	
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	115	Cantor, C.R. et al., "Report on the Sequencing by Hybridization Workshop," <i>Genomics</i> , 13:1378-1383 (1992).	
	116	Carr et al., "Novel Electrochemical Sensors for Neutral Molecules," <i>Chem. Commun.</i> , 1649-1650 (1997).	
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Examiner Signature	S. E. Yoman	Date Considered	5-17-03
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 6 of 12

Complete if Known

Application Number	09/866,067
Filing Date	May 23, 2001
First Named Inventor	Meade et al.
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	A-58762-20/RFT/RMS/RMK

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
52	118	Chang, I-Jy, et al., "High-Driving-Force Electron Transfer in Metalloproteins: Intramolecular Oxidation of Ferrocene by Ru(2,2'-bpy) ₂ (im)(His-33) ³⁺ ," <i>J. Am. Chem. Soc.</i> , 113:7056-7057 (1991).	
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	122	Clery, "DNA Goes Electric," <i>Science</i> , 267:1270 (1995).	
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	125	Davis, L. M., et al., "Elements of biosensor construction," <i>Enzyme Microb. Technol.</i> 17:1030-1035 (1995).	
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	128	Degani, Y., et al., "Direct Electrical Communication between Chemically Modified Enzymes and Metal Electrodes. 1. Electron Transfer from Glucose Oxidase to Metal Electrodes via Electron Relays, Bound Covalently to the Enzyme," <i>J. Phys. Chem.</i> , 91(6):1285-1288 (1987).	
	129	Deinhanmer, R.S., et al., "Electrochemical Oxidation of Amine-containing compounds: A Route to the Surface Modification of glassy carbon electrodes," <i>Langmuir</i> , 10:1306-1313 (1994).	
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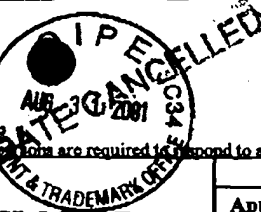
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary) SEP 04 2001		Application Number	09/866,067
		Filing Date	May 23, 2001
		First Named Inventor	Meade et al.
		Group Art Unit	Not Yet Assigned
		Examiner Name	Not Yet Assigned
Sheet 7	of 12	Attorney Docket Number	A-58762-20/RFT/RMS/RMK

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Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
SE	134	Durham, B., et al., "Photoinduced Electron-Transfer Kinetics of Singly Labeled Ruthenium Bis(bipyridin) Dicarboxybipyridine Cytochrome c Derivatives," <i>Biochemistry</i> , 28:8659-8665 (1989).	
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Application Number	09/866,067
Filing Date	May 23, 2001
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Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	A-58762-20/RFT/RMS/RMK

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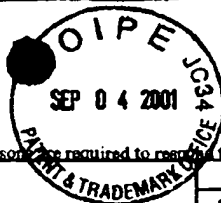
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		Filing Date	May 23, 2001
		First Named Inventor	Meade et al.
		Group Art Unit	Not Yet Assigned
		Examiner Name	Not Yet Assigned
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		Attorney Docket Number	A-58762-20/RFT/RMS/RMK

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Application Number	09/866,067
Filing Date	May 23, 2001
First Named Inventor	Meade et al.
Group Art Unit	Not Yet Assigned
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Sheet 10 of 12

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SE	186	Mucic et al., "DNA-Directed Synthesis of Binary Nanoparticle Network Materials," <i>J. Am. Chem. Soc.</i> , 120:12674-12675 (1998).	
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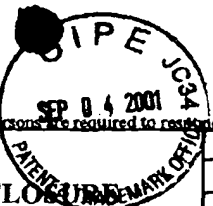
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SE	203	Schumm, et al., "Iterative Divergent/Convergent Approach to Linear Conjugated Oligomers by Successive Doubling of the Molecular Length: A Rapid Route to a 128 Å-Long Potential Molecular Wire," <i>Angew. Chem. Int. Ed. Engl.</i> , 33(11):1360-1363 (1994).	
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Complete if Known

Application Number	09/866,067
Filing Date	May 23, 2001
First Named Inventor	Meade et al.
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	A-58762-20/RFT/RMS/RMK

Sheet 12 of 12

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
SZ	218	Turro, N., et al. "Photoelectron Transfer Between Molecules Adsorbed in Restricted Spaces," <i>Photochem. Convers. Storage Sol. Energy, Proc. Int. Conf.</i> , 8th, pp 121-139 (1990).	
	219	Uosake, K., et al., "A Self-Assembled Monolayer of Ferrocenylalkane Thiols on Gold as an Electron Mediator for the Reduction of Fe(III)-EDTA in Solution," <i>Electrochimica Acta.</i> , 36(11/12):1799-1801 (1991).	
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	222	Watson et al., "Hybrid Nanoparticles with Block Copolymer Shell Structures," <i>J. Am. Chem. Soc.</i> , 121:462-463 (1999).	
	223	Weber, et al., "Voltammetry of Redox-Active Groups Irreversibly Adsorbed onto Electrodes. Treatment Using the Marcus Relation between Rate and Overpotential," <i>Anal. Chem.</i> , 66:3164-3172 (1994).	
	224	Williams, et al., "Studies of oligonucleotide interactions by hybridisation to arrays: the influence of dangling ends on duplex yield," <i>Nucleic Acids Research</i> , 22(8):1365-1367 (1994).	
	225	Winkler, J. R., et al., "Electron Transfer in Ruthenium-Modified Proteins," <i>Chem. Rev.</i> , 92:369-379 (1992).	
	226	Xu, et al., "Immobilization and Hybridization of DNA on an Aluminum(III) Alkanebisphosphonate Thin Film with Electrogenenerated Chemiluminescent Detection," <i>J. Am. Chem. Soc.</i> , 117:2627-2631 (1995).	
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	228	Yang, et al., "Growth and Characterization of Metal(II) Alkanebisphosphonate Multilayer Thin Films on Gold Surfaces," <i>J. Am. Chem. Soc.</i> , 115:11855-11862 (1993).	
	229	Yershov, G. et al., "DNA Analysis and Diagnostics on Oligonucleotide Microchips," <i>Proc. Natl. Acad. Sci. USA</i> , 93:4913-4918 (1996).	
	230	Zhou, et al., "Fluorescent Chemosensors Based on Energy Migration in Conjugated Polymers: The Molecular Wire Approach to Increased Sensitivity," <i>J. Am. Chem. Soc.</i> , 117:12593-12602 (1995).	

Examiner Signature SZ	Date Considered 5-17-03
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